

STATUS OF THE CLAIMS

Claims 1-7 and 9-37 were pending.

Claim 16 was objected to.

Claims 1-7, 9-15, and 17-33 were rejected under 35 USC 102(b) based on prior public sale.

Claims 1, 4-6, 23, 28, and 34-37 were rejected under 35 USC 103(a) over Kuwata (US 4,987,169).

Claims 2, 3, 19-27 and 29 were rejected under 35 USC 103(a) over Kuwata in view of the Merriam-Webster dictionary definition of “mill”.

Claim 10 is now cancelled as duplicative of claim 7.

Claims 1, 7, 11, 12, 34, and 35 are amended.

Claims 38-50 have been added.

Claims 1-7, 9, 11-50 are presented for reconsideration.

REMARKS

Claims 1 and 7 have been amended by the incorporation of an optional polymerization reactant monomer, which is a poly diphenyldimethylsiloxane which is α,ω terminated by two ethylene groups. This is supported by Examples 4 and 5 of the specification which show the presence of the diphenyldimethylsiloxane analog of the di-vinyl terminated polydimethylsiloxane in addition to the di-vinyl terminated polydimethylsiloxane. Since the Examples only have the diphenyldimethyl compound present when the di-vinyl terminated polydimethylsiloxane is present, but never alone, this addition to the claims has been made “optional”. Nonetheless, no new matter is presented by this amendment. Furthermore, notwithstanding that this addition to the claims is made after Final Rejection, applicant submits that no further review is necessary. Note that the addition is as an optional additional monomer, and not a replacement monomer. The original claims were open-ended (comprising) with respect to the monomers present, so that when the additional monomer is present, the resulting polymers are a subset of the original claims. Hence, this portion of the

amendment should be acceptable, even though it is made after final rejection. Applicant regrets any inconvenience this may cause the Examiner and respectfully requests that the claims, including this portion be considered in full on the merits.

New claims 38-50 substantially correspond to previously presented claims 1+34, 5, 6, 7+35, 17, 19, 21, 23, 24, 26, 28, 30, and 33. These claims differ from their counterparts by including the requirement that there also be a monomer in the polymerization mixture which will ‘graft onto’ the forming polymer. This is supported by the specification in paragraph 0022. Thus, the addition of these claims are not new matter.

Before addressing the rejections, Applicant calls to the Examiner’s attention the fact that errors have been detected in the Information Disclosure Statements previously provided concerning the recitation of the products on sale before the filing date of the present application. A new corrected IDS is enclosed herewith which specifically points out the corrections. In particular, the statements that the various formulations were prepared without controlling the shear was found to be incorrect. It was uncovered that formulations B-O were prepared with mixing until gelling was observed and then mixing was stopped. However, it should be noted that all of the products that were sold before the present invention filing date (other than formulation A) contained a low-viscosity silicone oil as a polymerization medium. Formulation A had a hydrocarbon polymerization medium instead.

Because of this realization of the error in the IDS, Applicant now realizes that formulations B-O as prepared were offered for sale more than 1 year before the relevant dates and cannot now be claimed. Each of those products contained silicone oil as a polymerization medium. As such, the present application claims 1, 7, 34, and 35 (all of the independent claims previously pending in the present application) have been amended to exclude low “viscosity silicone oils” as a polymerization medium. Thus, the subject matter of the present claims 1-7, 9, and 11-37 no longer includes the products where silicone oil is the

polymerization oil. Newly added claims 38-50, while retaining the silicone oils as polymerization media require grafted portions that were not present in any of the materials in any of the formulations set forth in the prior IDSs. In other words, the formulations B-O that were offered for sale before critical dates are no longer within the claimed invention. As such (without commenting on Formulation A discussed more fully below) the currently claimed invention was not on sale more than 1 year before the filing date of the present application. Formulation A, still within the present claims, as noted in the IDS was first offered for sale on 6/4/02, which is more than 1 year before the present application filing date (8/22/2003), but less than 1 year before applicant's provisional application filing date (12/11/2002). Formulation A is fully supported in applicant's provisional case so that the effective filing date with respect to Formulation A is that of the provisional case 12/11/2002. Hence, Formulation A was not offered for sale more than 1 year before 12/11/2002. As such, formulation A does not present an on sale bar either. Given the above, the 35 USC 102 rejection is overcome and should be withdrawn.

Since there is no other rejection against claims 7, 11-18, and 30-33, these claims are allowable.

Claims 1-6, 19-29, and 34-37 are further rejected under 35 USC 103 over Kuwata. The Kuwata reference differs from the present invention in at least the following two significant respects. First, Kuwata teaches the use of a silicone oil as the polymerization medium while the invention now excludes silicone oil as the polymerization medium. Secondly, the Kuwata reference makes no mention of the requirement that one stop the mixing once gelling is visibly seen. This is required for all of claims 1-6, 19-29. Kuwata also makes no reference to controlling the shear during polymerization in any other manner such as by using a small blade so that the entire polymerization is not subjected to shearing forces during the polymerization reaction even though mixing continues. This is required by claims 34-37.

Claims 38-50, while including silicone oils as polymerization media, all require the polymerization to be conducted with an additional monomer present to result in a graft polymer not present in any of the formulations discussed in the previously submitted IDSs and not shown in the Kuwata reference. Furthermore, each of claims 38-50 requires either that the mixing be stopped when gelling is visibly seen or controlling the shear during polymerization such as by using a small blade so that the entire polymerization is not subjected to shearing forces during the polymerization reaction even though mixing continues. Thus, as discussed above concerning claims 1-6, 19-29, and 34-37, claims 38-50 also overcome Kuwata.

In support of showing that the stopping the mixing once gelling is visibly seen results in a different product than allowing the entire polymerization reaction mass to be subjected to significant mixing, Applicant submits herewith the enclosed Awad Declaration. This declaration is also submitted in support of the fact that using a small blade with continuous mixing (so that the entire mass is not subjected to significant shearing during the polymerization gives a different product than the prior art situation where the entire polymerization reaction mass is subjected to continuous mixing.

The Awad Declaration shows that the simple difference in processing during the polymerization reaction described above gives a product that has a significantly different viscosity and clarity than that shown in the art using the art polymerization medium. Thus, the Kuwata reference does not teach or suggest or motivate one to change the processing conditions taught there to those of the present invention. Furthermore, the products, even using the same polymerization medium as in Kuwata are different when the invention processing conditions are used than when those of Kuwata are used. As such, the products are not the same as in Kuwata. Hence, since the invention requires that the polymerization medium be different than that of Kuwata, the products of the present claims are clearly not the

same as in or suggested by Kuwata. In addition, the results presented show such extensive differences in viscosity and clarity for the processing conditions of the present invention from the same formulations polymerized under the Kuwata processing conditions, that the products and methods of the present invention are not obvious over Kuwata. Hence, the Kuwata reference is overcome and all of claims 1-6, 19-29, and 34-50 are allowable as well.

The undersigned has noted that Dr. Awad signed the declaration dating it January 13, 2005, but made two corrections that he dated January 14, 2005. Recognizing that the correction dates are after the signature dates, the undersigned is in the process of having a corrected Declaration with a new signature date signed by Dr. Awad. Nonetheless, the undersigned hereby affirms that Dr. Awad did indicate to the undersigned that these two corrections to Table III of the Awad Declaration were being made by Dr. Awad. Thus, Applicant respectfully requests the Examiner act on the present papers. The corrected Awad declaration will be forwarded as soon as it is signed.

In light of the foregoing, all of the pending claims are now allowable and the Examiner is respectfully requested to issue a Notice of Allowance.

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Respectfully submitted,

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